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EXAMINER

LUKS, JEREMY AUSTIN

ART UNIT PAPER NUMBER

2837

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Please find below and/or attached an Office communication concerning this application or proceeding.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 17, 18, 20-39, 57 and 58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite in that it fails to point out what is included or excluded by the claim language. This claim is an omnibus type claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 9-16, 40-42 and 48-55 are rejected under 35 U.S.C. 102(b) as being anticipated by Kerman (4,800,984).

With respect to Claims 1-3, 41, 42 and 48, Kerman teaches an acoustical barrier as a dash mat (Col. 3, Lines 13-19) comprising a layer of light weight firm-flexible foam (Figure 1, #10) formed into a complex shape (See shape of Figure 1) that is adapted to be mounted to a sound-transmitting substrate and having acoustic properties that meet both requisite sound absorption and sound transmission attenuation standards (Col. 3, Lines 27-32; Col.4, Lines 52-61); and having sufficient stiffness to retain its shape during handling, shipment and installation.

With respect to Claims 9 and 49, Kerman teaches the thickness (Figure 1, #20) of the foam layer (10) varies to exhibit different acoustical properties at different portions of the dash mat (Col. 3, Lines 45-50).

With respect to Claims 10, 11, 50 and 51, Kerman teaches foam having a density in the range of about 2 to 9 lb/cu ft (See Claim 3).

With respect to Claims 12-15 and 52-55, Kerman teaches the foam having a stiffness of between force at a 25% indentation force 30 and 300 pounds- deflection (IFD) pursuant to ASTM D3574-01.

With respect to Claim 16, Kerman teaches a thin impervious barrier (Figure 12, #2) layer overlying the foam layer.

With respect to Claim 40, Kerman teaches A method of attenuating sound through a firewall between a motor compartment and a cabin of a vehicle comprising the steps of; mapping the sound transmission through the firewall between the engine compartment and the cabin as a function of a set of coordinates of a cabin surface of the firewall that faces the cabin', selecting a firm-flexible foam that has both sound transmission and sound absorbing properties and that has structural integrity for handling, shipping and installation; designing a layer of the selected firm-flexible foam in a shape that generally conforms to the cabin surface of the firewall and that has selected areas that are designed with configurations that have different acoustical properties that correspond to the mapped sound transmission properties as a function of the set of coordinates; and molding the designed layer into a shape to generally conform to the cabin surface (Col 3, Lines 13-26, 33-39, 51-55).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
3. Claims 4-8 and 43-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerman (4,800,984) in view of Campbell (5,886,305).

With respect to Claims 4 and 43, Kerman is relied upon for the reasons and disclosures set forth above. Kerman fails to disclose an acoustical barrier having an obverse surface and a reverse side, and wherein patterned recesses are formed in at least a portion of the reverse side, and wherein the patterned recesses are adapted to attenuate the transmission of sound from a sound-transmitting substrate against which the reverse side of the acoustical barrier is adapted to be placed. Campbell discloses an acoustical barrier (Figure 1, #10) having an obverse surface (14) and a reverse side (Figure 2, #16), and wherein patterned recesses (28) are formed in at least a portion of the reverse side (16), and wherein the patterned recesses (28) are adapted to attenuate

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the transmission of sound from a sound-transmitting substrate against which the reverse side (16) of the acoustical barrier (10) is adapted to be placed (Col. 1, Lines 44-49). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Kerman with the apparatus of Campbell to provide a high degree of impact resistance from interior or exterior forces, provided by Campbell's recess and rib configuration that is not present in the design of Kerman.

With respect to Claims 5-7 and 44-45, Campbell discloses the spacing and pattern of the recesses (Figure 2, #28) define a regular array (32), wherein spaced support columns (32, 32) are adapted to contact (34) the sound-transmitting substrate when the acoustical barrier (10) is installed on the sound-transmitting substrate (Col. 4 Lines 7-9); and the spacing and pattern of the recesses (Figure 2, #28) define an irregular array (26). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Kerman with the apparatus of Campbell to provide a high degree of impact resistance from interior or exterior forces, provided by Campbell's recess and rib configuration that is not present in the design of Kerman.

With respect to Claims 8 and 46, Kerman discloses at least one selected area of the structure with an enlarged wall thickness (Figure 1, #20) to increase the sound absorption through the foam layer (10) (Col. 3, Lines 45-50).

With respect to Claim 47, Kerman discloses an enlarged wall thickness (Figure 1, #20) to at least partially surround an opening (32) in the foam layer (10).

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4. Claims 19 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kerman (4,800,984) in view of Focht (4,121,960). Kerman is relied upon for the reasons and disclosures set forth above. Kerman fails to disclose foam with porosity in the range of about 20 to 120 cells per inch. Nevertheless, Focht discloses foam (Figure 3, #48) with porosity in the range of about 20 to 120 cells per inch (Col 2, Lines 62-68; Col. 3, Lines 1-2). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the apparatus of Kerman with the apparatus of Focht to achieve desired sound absorbing characteristics, as well as its frequent use in the art.

Response to Arguments

5. Applicant's arguments filed 6/27/06 have been fully considered but they are not persuasive.

6. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the prior art references are all closely related and their obvious combination teach all of the limitations claimed by Applicant.

7. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections

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are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

8. With respect to the argument that Claims 17, 18, 20-39, 57 and 58 are not omnibus, the Examiner sustains the indefiniteness rejection. Examiner suggests that Applicant incorporate a working range into the claim limitations to replace the data represented in the figures as presently claimed. For example, Claim 17 might read "wherein the foam sheet when mounted to a steel substrate has a sound transmission loss of 0-58 dB from 63Hz-10kHz."

9. With respect to the argument regarding Claims 1-3, 9-16, 40-42 and 48-55, the Kerman reference discloses a foam layer with similar properties (Col. 4, Lines 52-61; Col. 5, Line 54) as claimed by applicant in paragraph [0017] in the Specification. The firm foam of Kerman will perform the functions of the claimed limitations. With respect to Claims 10 and 50, Applicant is referred to Col. 5, Line 54 in Claim 3 as stated in this Office Action, where Kerman discloses a density of 1-12 lbs. per foot.

10. With respect to the argument regarding Claims 4-8 and 43-47, Examiner refers to the paragraphs 7 and 9 above. Applicant must view the combination of the references as a whole and not individually.

11. With respect to the argument regarding the obvious combination of Kerman and Focht, Focht discloses foam porosity (Col. 2, Line 67-Col. 3, Line2) within the range claimed by Applicant and therefor necessitates the rejection.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Luks whose telephone number is (571) 272-2707. The examiner can normally be reached on Monday-Thursday 8:30-6:00, and alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-1988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeremy Luks
Patent Examiner
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